

Teaching and Learning Resources

from Diane Hawkins



Habitats and Food Chains

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What is an ecosystem?

- An ecosystem refers to all the animals and plants found in one place, and the way they all live together.
- Different plants and animals live in different ecosystems.
- Different ecosystems can be close together.
- Some animals belong to several ecosystems.



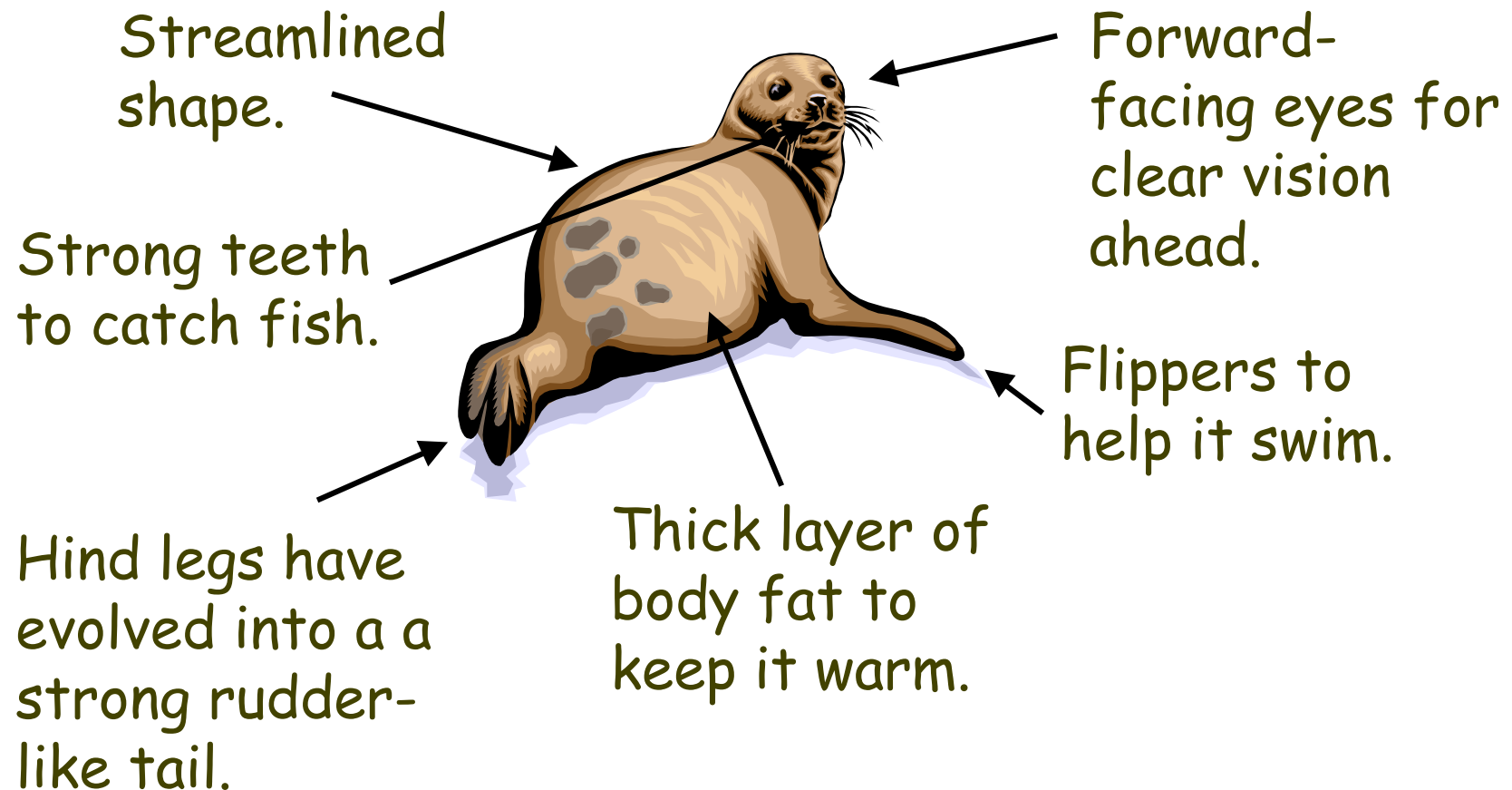
What is an environment?

- Everything that affects an animal makes up its environment - where it lives, the weather and all the living things it comes into contact with.
- Every living thing, including people, has an effect upon the environment.

Animal Adaptation

- All living things have to be suited to their environment if they are to survive.
- Fish have streamlined bodies, fins and specially shaped tails to help them move quickly and easily through the water.
- Squirrels have sharp, strong claws for gripping tree trunks and branches and strong teeth for eating nuts.

How is the seal adapted to its environment?



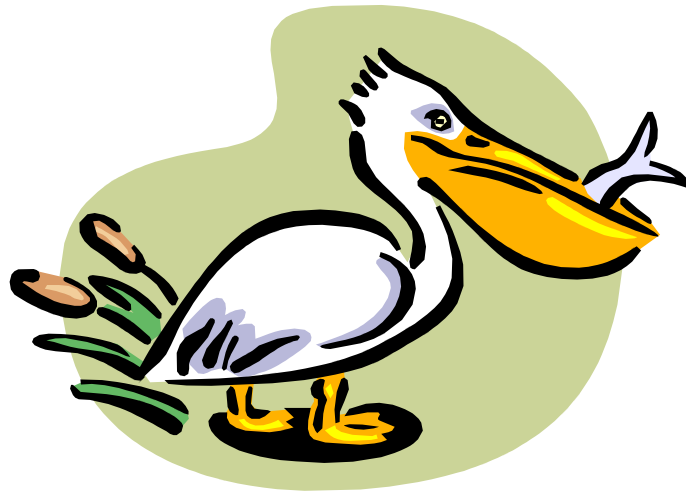
Homes and Habitats

- The place where an animal lives is called its habitat.
- An animal lives where it can find food, water, shelter and a mate.



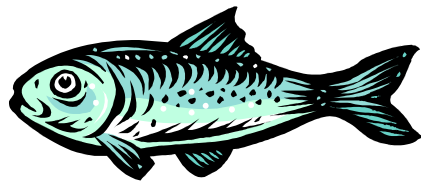
Living things

- All living things (organisms) need food (nourishment) to live.
- Living things in an ecosystem depend on each other for food.



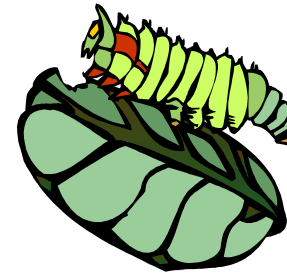
Carnivores

Some animals, like the kingfisher, eat only other animals. These animals are called "carnivores".



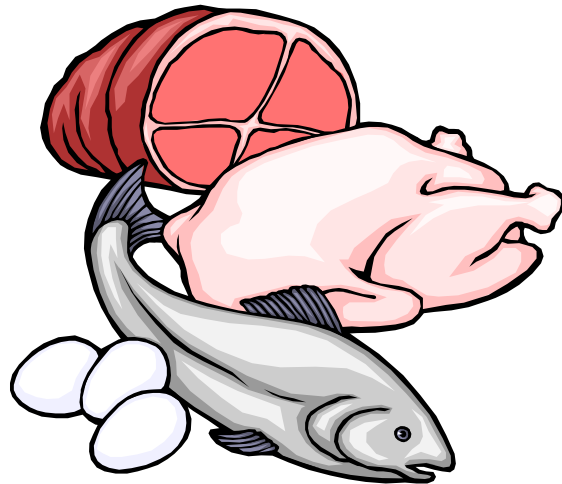
Herbivores

Some animals do not eat other animals.
They survive on plants and are known
as "herbivores".



Omnivores

- Some animals, like us, eat both plants and animals.
- These animals are called "omnivores".



Consumers

- "Consume" means "eat".
- Animals are consumers because they "eat" (consume) food provided by plants or other animals.

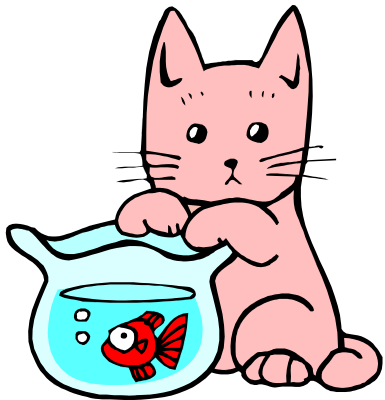


Producers

- Plants are living organisms. They need nourishment to survive.
- But...
- Plants do not eat other plants or animals.
- Plants are called producers, because they make their own food inside themselves.

Predator

A predator eats other animals.



Cats eat fish.



So do bears!

Predator

- The cat is a predator, because it eats other animals.
- The bear is a predator, because it eats other animals.
- People are predators too!

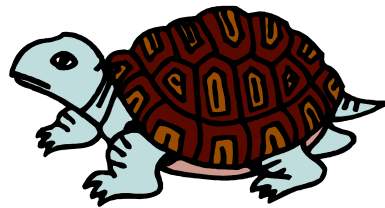
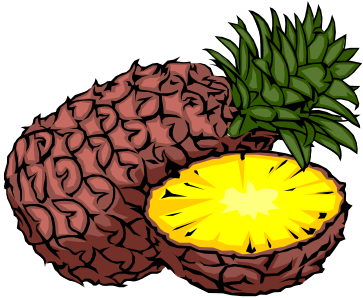


Prey

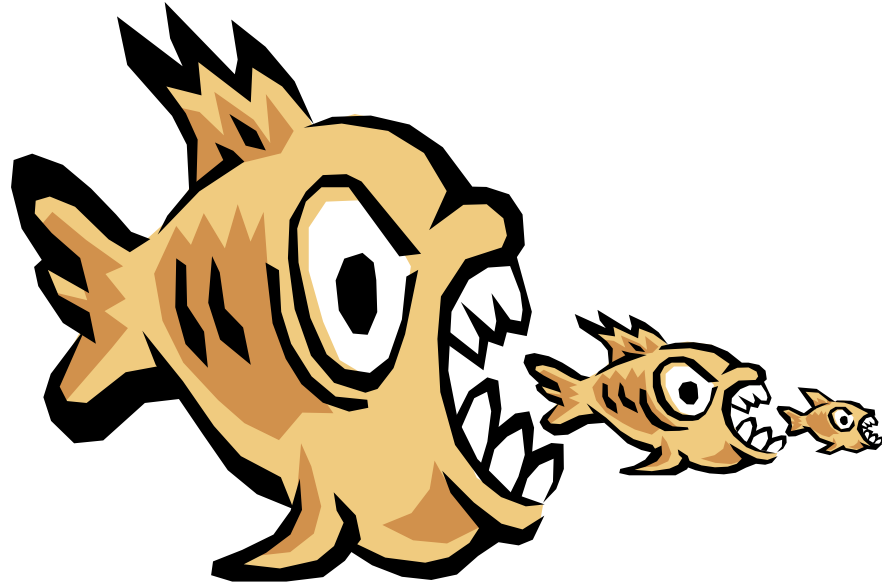
Any animal which is hunted and killed by another animal for food is prey.



Match the predator to its prey.



Predators and Prey

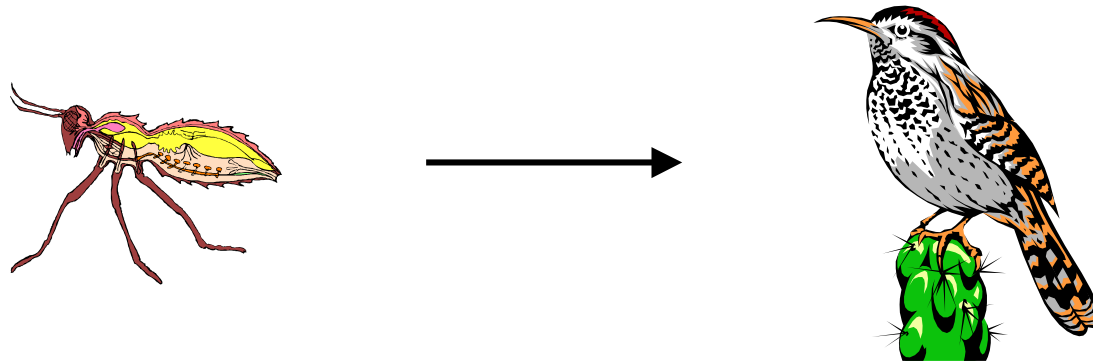


Some animals are predators, some are prey - some are both.

The predator **eats** the prey, and the prey **gets eaten** by the predator.

Food Chains

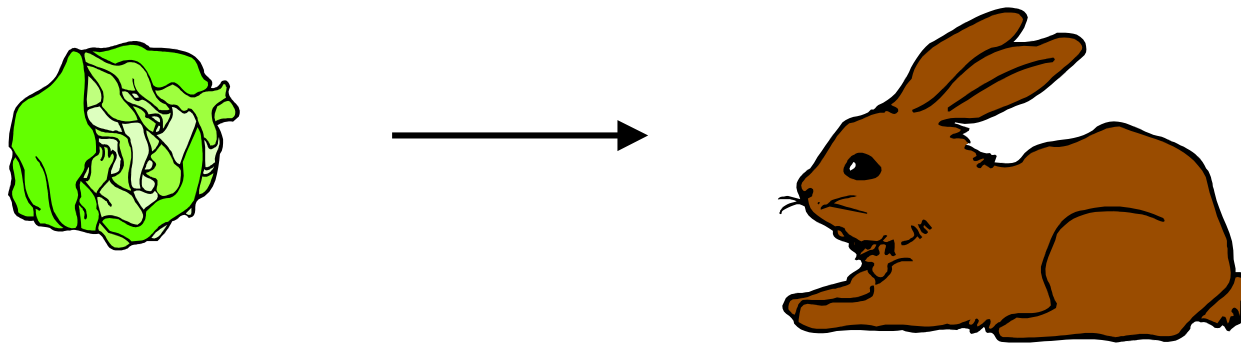
A food chain shows what is eaten.



The fly is eaten by the thrush.

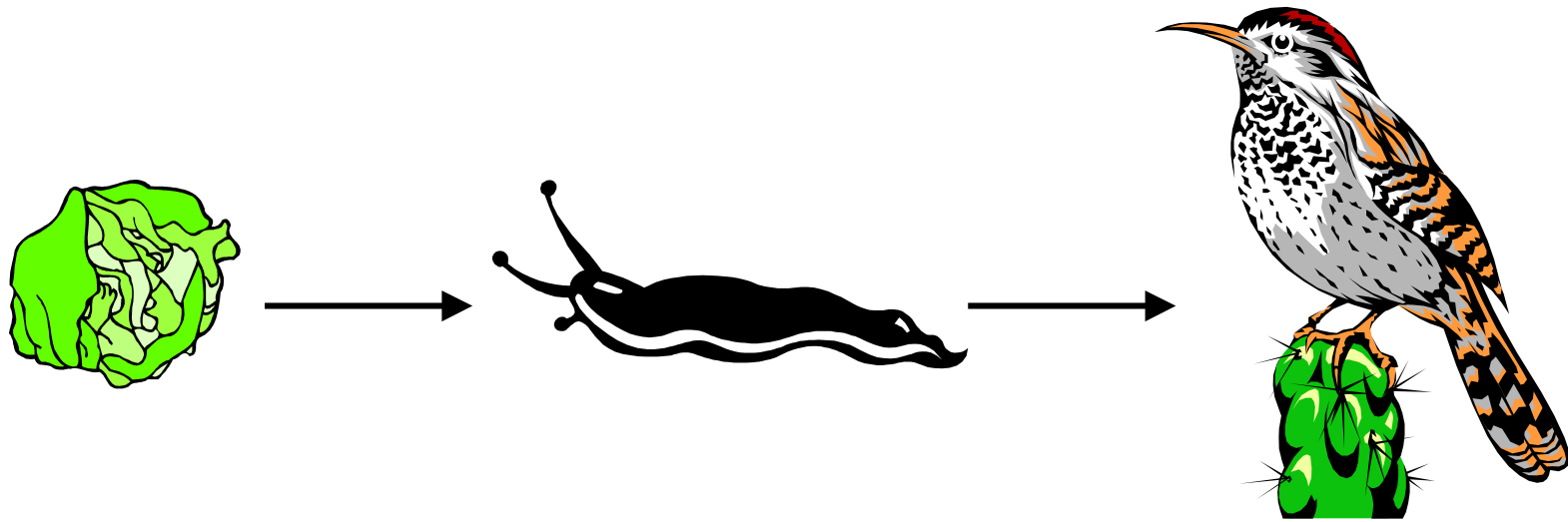
Food Chains

A food chain shows what is eaten.



The lettuce is eaten by the rabbit.

Food chains always start
with a plant.

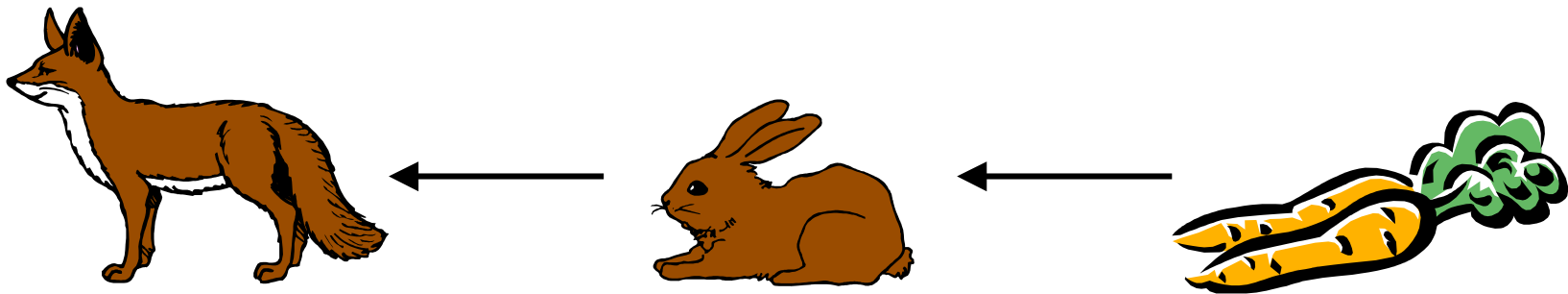
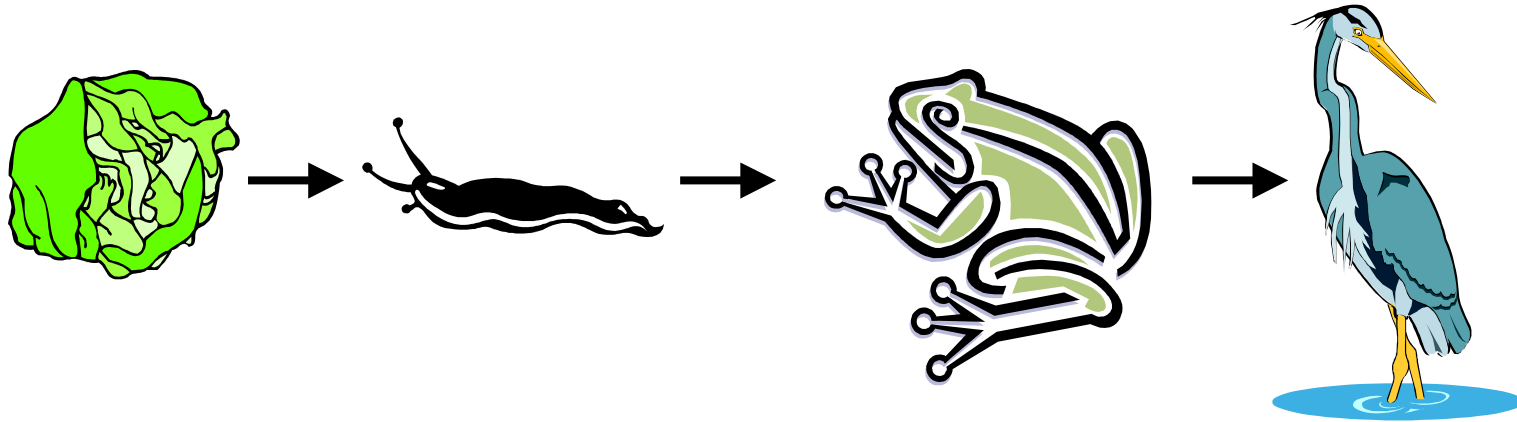


The lettuce is eaten by the slug, the slug is eaten by the
bird.

Food Chains - a Reminder

- A food chain shows which animals eat other animals or plants.
- Plants don't eat things.
- A food chain starts with what gets eaten and the arrows point towards what does the eating.
- Food chains only go in one direction.

Where do the arrows point?



The top of the food chain.

Some animals are said to be at the top of the food chain. This is because they are not hunted by other animals.



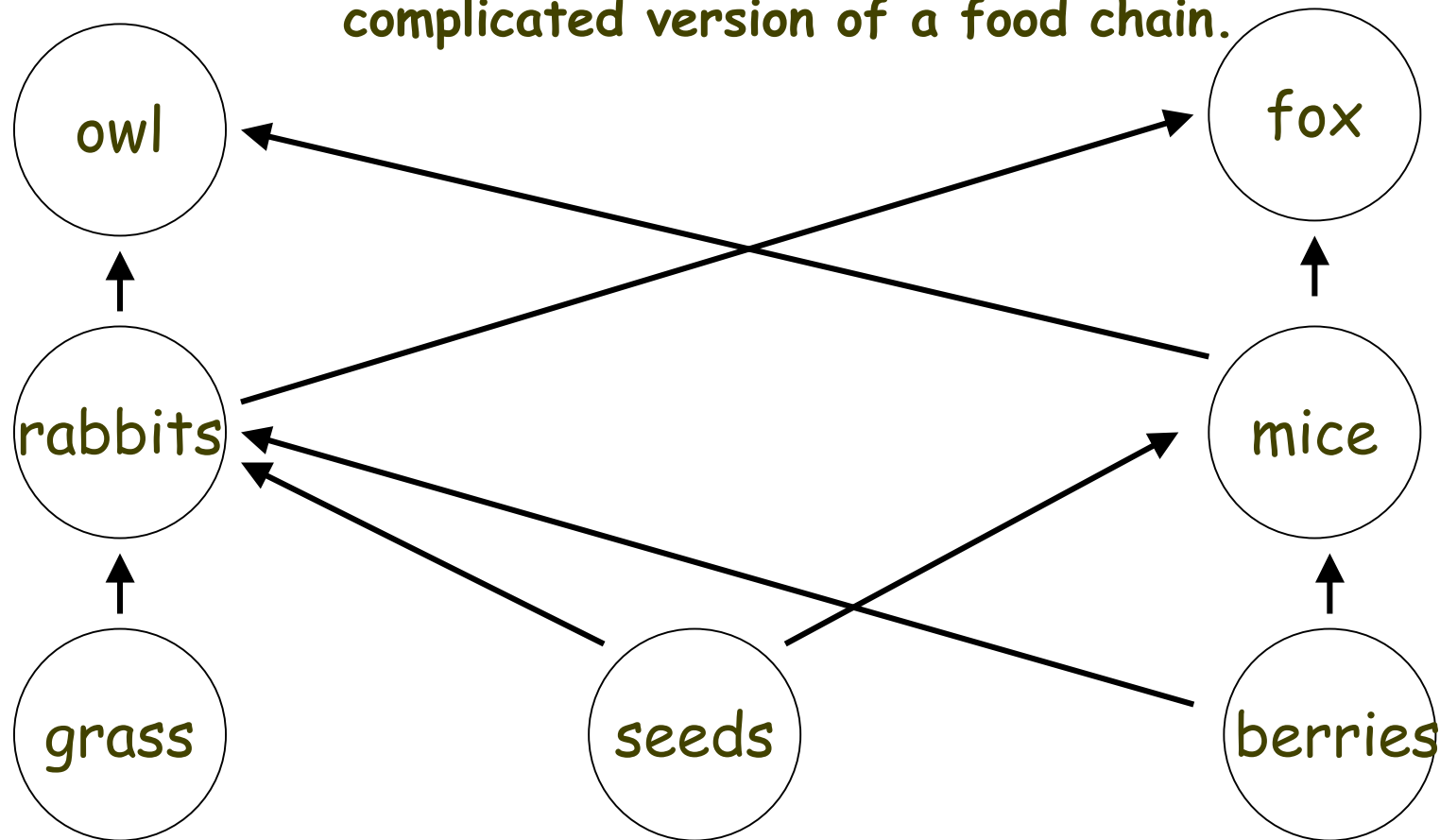
No other animal hunts the lion. The lion is at the top of the food chain. Can you think why?

Food Webs

- In the wild, animals may eat more than one thing, so they belong to more than one food chain.
- To get the food they need, small herbivores may eat lots of different plants, and carnivores may eat many different animals.

Food Webs

We can show this by using a food web, which is just a more complicated version of a food chain.



Breaking the Chain

- Organisms living in a habitat depend on each other.
- If one part of a food chain dies out or is greatly reduced, the consumers have to find alternative food, move away, or starve.
- This then affects more consumers in the same way.

Endangered or Extinct?

- The number of people in the world is growing at an alarming rate.
- But this is not true for all animals.
- In some cases, there are only a few of one type of animal left in the wild.
- These animals are endangered.
- If they die out completely, they become extinct.

Why does this happen?

There are lots of reasons why animals become endangered or extinct.

The most common are:

- loss of habitat (woodlands cut down, rivers drying up, hedgerows removed).
- chemicals or pollution poison the animals.
- hunting (for sport, their fur, tusks or meat).

Caring for the Environment

- It is in our own best interests to look after the world we live in.
- If a habitat is lost or damaged, it has an effect on everything else, even if we do not see or understand it straight away.
- Remember - once something becomes extinct, it's gone forever!